

Environmental Protection Agency

§ 86.004-9

manufacturer, the emissions warranty shall also be shared in the same manner as specified in the warranty agreement.

[62 FR 54720, Oct. 21, 1997, as amended at 65 FR 59945, Oct. 6, 2000; 66 FR 5159, Jan. 18, 2001]

EFFECTIVE DATE NOTE: At 77 FR 34145, June 8, 2012, § 86.004-2 was amended by adding definitions for “ambulance”, “diesel exhaust fluid”, “emergency vehicle”, and “fire truck” and by revising the definition for “defeat device”, effective August 7, 2012. For the convenience of the user, the added and revised text is set forth as follows:

§ 86.004-2 Definitions.

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Ambulance has the meaning given in § 86.1803.

Defeat device means an auxiliary emission control device (AECDD) that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless:

(1) Such conditions are substantially included in the applicable Federal emission test procedure for heavy-duty vehicles and heavy-duty engines described in subpart N of this part;

(2) The need for the AECDD is justified in terms of protecting the vehicle against damage or accident;

(3) The AECDD does not go beyond the requirements of engine starting; or

(4) The AECDD applies only for engines that will be installed in *emergency vehicles*, and the need is justified in terms of preventing the engine from losing speed, torque, or power due abnormal conditions of the emission control system, or in terms of preventing such abnormal conditions from occurring, during operation related to emergency response. Examples of such abnormal conditions may include excessive exhaust backpressure from an overloaded particulate trap, and running out of diesel exhaust fluid for engines that rely on urea-based selective catalytic reduction.

Diesel exhaust fluid (DEF) has the meaning given in § 86.1803.

Emergency vehicle means a vehicle that is an ambulance or a fire truck.

Fire truck has the meaning given in § 86.1803.

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§ 86.004-9 Emission standards for 2004 and later model year light-duty trucks.

Section 86.004-9 includes text that specifies requirements that differ from § 86.097-9, § 86.099-9, § 86.000-9 or § 86.001-9. Where a paragraph in § 86.097-9, § 86.099-9, § 86.000-9 or § 86.001-9 is identical and applicable to § 86.004-9, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.097-9.” or “[Reserved]. For guidance see § 86.099-9.” or “[Reserved]. For guidance see § 86.000-9.” or “[Reserved]. For guidance see § 86.001-9.”

(a)(1) introductory text through (a)(1)(iii) [Reserved]. For guidance see § 86.097-9.

(a)(1)(iv)–(b)(4) [Reserved]. For guidance see § 86.099-9.

(b)(5) [Reserved]

(b)(6) [Reserved]. For guidance see § 86.001-9.

(c) [Reserved]. For guidance see § 86.097-9.

(d) Refueling emissions from 2004 and later model year gasoline-fueled and methanol-fueled Otto-cycle and petroleum-fueled and methanol-fueled diesel-cycle light-duty trucks shall not exceed the following standards. The standards apply equally to certification and in-use vehicles.

(d)(1)–(d)(2)(ii) [Reserved]. For guidance see § 86.001-9.

(d)(2)(iii) Heavy-duty vehicles certified as light-duty trucks under the provisions of § 86.085-1 shall comply with the provisions of § 86.001-9 (d)(1)(i) and (ii).

(3)(i) All light-duty trucks of a GVWR equal to 6,000 pounds or less (100%) must meet the refueling emission standard.

(ii) A minimum of the percentage shown in table A04-09 of a manufacturer's sales of the applicable model year's gasoline- and methanol-fueled Otto-cycle and petroleum-fueled and methanol-fueled diesel-cycle light-duty trucks of 6,001 to 8,500 pounds GVWR shall be tested under the procedures in subpart B of this part indicated for 2004 and later model years, and shall not exceed the standards described in § 86.001-9 (d)(1). Vehicles certified in accordance with § 86.001-9 (d)(2)(ii), as determined by the provisions of § 86.001-

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28(g), shall not be counted in the calculation of the percentage of compliance:

TABLE A04–09—IMPLEMENTATION SCHEDULE FOR LIGHT-DUTY TRUCK REFUELING EMISSION TESTING

Model year	Sales percentage
2004	40
2005	80
2006 and subsequent	100

(e) [Reserved]. For guidance see § 86.000–9.

(f) [Reserved]

(g)–(k) [Reserved]. For guidance see § 86.097–9.

[61 FR 54889, Oct. 22, 1996]

§ 86.004–11 Emission standards for 2004 and later model year diesel heavy-duty engines and vehicles.

This section applies to 2004 and later model year diesel HDEs.

(a)(1) Exhaust emissions from new 2004 and later model year diesel HDEs shall not exceed the following:

(i)(A) Oxides of Nitrogen plus Non-methane Hydrocarbons (NO_x +NMHC) for engines fueled with either petroleum fuel, natural gas, or liquefied petroleum gas, 2.4 grams per brake horsepower-hour (0.89 gram per megajoule), as measured under transient operating conditions.

(B) Oxides of Nitrogen plus Non-methane Hydrocarbon Equivalent (NO_x+NMHCE) for engines fueled with methanol, 2.4 grams per brake horsepower-hour (0.89 gram per megajoule), as measured under transient operating conditions.

(C) *Optional standard.* Manufacturers may elect to certify to an Oxides of Nitrogen plus Non-methane Hydrocarbons (or equivalent for methanol-fueled engines) standard of 2.5 grams per brake horsepower-hour (0.93 gram per megajoule), as measured under transient operating conditions, provided that Non-methane Hydrocarbons (or equivalent for methanol-fueled engines) do not exceed 0.5 grams per brake horsepower-hour (0.19 gram per megajoule) NMHC (or NMHCE for methanol-fueled engines), as measured under transient operating conditions.

(D) A manufacturer may elect to include any or all of its diesel HDE families in any or all of the emissions ABT programs for HDEs, within the restrictions described in § 86.004–15 or superseding applicable sections. If the manufacturer elects to include engine families in any of these programs, the NO_x plus NMHC (or NO_x plus NMHCE for methanol-fueled engines) FELs may not exceed 4.5 grams per brake horsepower-hour (1.7 grams per megajoule). This ceiling value applies whether credits for the family are derived from averaging, banking, or trading programs. Additionally, families certified to the optional standard contained in paragraph (a)(1)(i)(C) of this section shall not exceed 0.50 grams per brake horsepower-hour (0.19 gram per megajoule) NMHC (or NMHCE for methanol-fueled engines) through the use of credits.

(E) [Reserved]

(ii) *Carbon monoxide.* (A) 15.5 grams per brake horsepower-hour (5.77 grams per megajoule), as measured under transient operating conditions.

(B) 0.50 percent of exhaust gas flow at curb idle (methanol-, natural gas-, and liquefied petroleum gas-fueled diesel HDEs only).

(iii) *Particulate.* (A) For diesel engines to be used in urban buses, 0.05 gram per brake horsepower-hour (0.019 gram per megajoule) for certification testing and selective enforcement audit testing, and 0.07 gram per brake horsepower-hour (0.026 gram per megajoule) for in-use testing, as measured under transient operating conditions.

(B) For all other diesel engines, 0.10 gram per brake horsepower-hour (0.037 gram per megajoule), as measured under transient operating conditions.

(C) A manufacturer may elect to include any or all of its diesel HDE families in any or all of the particulate ABT programs for HDEs, within the restrictions described in § 86.004–15 or superseding applicable sections. If the manufacturer elects to include engine families in any of these programs, the particulate FEL may not exceed 0.25 gram per brake horsepower-hour (0.093 gram per megajoule).

(2) The standards set forth in paragraph (a)(1) of this section refer to the